



ESL
SCIENCE
BUSINESS
BILINGUAL
PRESCHOOL
MATHEMATICS
LIBRARY MEDIA
SOCIAL STUDIES
WORLD LANGUAGES
GIFTED & TALENTED
TECHNOLOGY EDUCATION
ENGLISH LANGUAGE ARTS
FINE & PERFORMING ARTS
FAMILY & CONSUMER SCIENCE
HEALTH & PHYSICAL EDUCATION

RAHWAY PUBLIC SCHOOLS

CURRICULUM & INSTRUCTION

Content Area: Mathematics

Course: Life Skills Math

Grade Level: 9 - 12

This curriculum is part of the Educational Program of Studies of the Rahway Public Schools.

ACKNOWLEDGMENTS

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Subject/Course Title:
Life Skills Mathematics
9-12

Date of Board Adoption:
August 24, 2024

RAHWAY PUBLIC SCHOOLS CURRICULUM

Life Skills Mathematics 9-12

PACING GUIDE

Unit	Title	Pacing
1	Money Sense	13 weeks
2	Math at Home	13 weeks
3	Career Math	14 weeks

ACCOMMODATIONS

<p>504 Accommodations:</p> <ul style="list-style-type: none"> ● Provide scaffolded vocabulary and vocabulary lists. ● Provide extra visual and verbal cues and prompts. ● Provide adapted/alternate/excerpted versions of the text and/or modified supplementary materials. ● Provide links to audio files and utilize video clips. ● Provide graphic organizers and/or checklists. ● Provide modified rubrics. ● Provide a copy of teaching notes, especially any key terms, in advance. ● Allow additional time to complete assignments and/or assessments. ● Provide shorter writing assignments. ● Provide sentence starters. ● Utilize small group instruction. ● Utilize Think-Pair-Share structure. ● Check for understanding frequently. ● Have student restate information. ● Support auditory presentations with visuals. ● Weekly home-school communication tools (notebook, daily log, phone calls or email messages). ● Provide study sheets and teacher outlines prior to assessments. ● Quiet corner or room to calm down and relax when anxious. ● Reduction of distractions. ● Permit answers to be dictated. ● Hands-on activities. ● Use of manipulatives. ● Assign preferential seating. ● No penalty for spelling errors or sloppy handwriting. ● Follow a routine/schedule. ● Provide student with rest breaks. ● Use verbal and visual cues regarding directions and staying on task. ● Assist in maintaining agenda book. 	<p>IEP Accommodations:</p> <ul style="list-style-type: none"> ● Provide scaffolded vocabulary and vocabulary lists. ● Differentiate reading levels of texts (e.g., Newsela). ● Provide adapted/alternate/excerpted versions of the text and/or modified supplementary materials. ● Provide extra visual and verbal cues and prompts. ● Provide links to audio files and utilize video clips. ● Provide graphic organizers and/or checklists. ● Provide modified rubrics. ● Provide a copy of teaching notes, especially any key terms, in advance. ● Provide students with additional information to supplement notes. ● Modify questioning techniques and provide a reduced number of questions or items on tests. ● Allow additional time to complete assignments and/or assessments. ● Provide shorter writing assignments. ● Provide sentence starters. ● Utilize small group instruction. ● Utilize Think-Pair-Share structure. ● Check for understanding frequently. ● Have student restate information. ● Support auditory presentations with visuals. ● Provide study sheets and teacher outlines prior to assessments. ● Use of manipulatives. ● Have students work with partners or in groups for reading, presentations, assignments, and analyses. ● Assign appropriate roles in collaborative work. ● Assign preferential seating. ● Follow a routine/schedule.
<p>Gifted and Talented Accommodations:</p> <ul style="list-style-type: none"> ● Differentiate reading levels of texts (e.g., Newsela). ● Offer students additional texts with higher lexile levels. ● Provide more challenging and/or more supplemental readings and/or activities to deepen understanding. ● Allow for independent reading, research, and projects. ● Accelerate or compact the curriculum. ● Offer higher-level thinking questions for deeper analysis. ● Offer more rigorous materials/tasks/prompts. 	<p>ML Accommodations:</p> <ul style="list-style-type: none"> ● Provide extended time. ● Assign preferential seating. ● Assign peer buddy who the student can work with. ● Check for understanding frequently. ● Provide language feedback often (such as grammar errors, tenses, subject-verb agreements, etc...). ● Have student repeat directions. ● Make vocabulary words available during classwork and exams. ● Use study guides/checklists to organize information. ● Repeat directions.

- Increase number and complexity of sources.
- Assign group research and presentations to teach the class.
- Assign/allow for leadership roles during collaborative work and in other learning activities.

- Increase one-on-one conferencing.
- Allow student to listen to an audio version of the text.
- Give directions in small, distinct steps.
- Allow copying from paper/book.
- Give student a copy of the class notes.
- Provide written and oral instructions.
- Differentiate reading levels of texts (e.g., Newsela).
- Shorten assignments.
- Read directions aloud to student.
- Give oral clues or prompts.
- Record or type assignments.
- Adapt worksheets/packets.
- Create alternate assignments.
- Have student enter written assignments in criterion, where they can use the planning maps to help get them started and receive feedback after it is submitted.
- Allow student to resubmit assignments.
- Use small group instruction.
- Simplify language.
- Provide scaffolded vocabulary and vocabulary lists.
- Demonstrate concepts possibly through the use of visuals.
- Use manipulatives.
- Emphasize critical information by highlighting it for the student.
- Use graphic organizers.
- Pre-teach or pre-view vocabulary.
- Provide student with a list of prompts or sentence starters that they can use when completing a written assignment.
- Provide audio versions of the textbooks.
- Highlight textbooks/study guides.
- Use supplementary materials.
- Give assistance in note taking
- Use adapted/modified textbooks.
- Allow use of computer/word processor.
- Allow student to answer orally, give extended time (time-and-a-half).
- Allow tests to be given in a separate location (with the ESL teacher).
- Allow additional time to complete assignments and/or assessments.
- Read question to student to clarify.
- Provide a definition or synonym for words on a test that do not impact the validity of the exam.
- Modify the format of assessments.
- Shorten test length or require only selected test items.
- Create alternative assessments.
- On an exam other than a spelling test, don't take points off for spelling errors.

UNIT OVERVIEW

Content Area: Life Skills Mathematics

Unit Title: Money Sense

Target Course/Grade Level: Life Skills Mathematics/9-12

Unit Summary: The students will learn to apply math to everyday situations by developing valuable consumer math skills. This unit equips learners with essential financial literacy skills to navigate confidently daily exploring topics such as budgeting and banking.

Approximate Length of Unit: 13 Weeks

LEARNING TARGETS

NJ Student Learning Standards:

- N-Q.A.1: Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays
- N-Q.A.2: Define appropriate quantities for the purpose of descriptive modeling.
- N-Q.A.3: Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.
- 2.MD.C.8: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?
- 4.MD.A.2: Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

Career Readiness, Life Literacies, and Key Skills:

- 9.1.5.EG.1 : Explain and give examples of what is meant by the term “tax.”
- 9.1.5.RMI.1: Identify risks that individuals and households face.
- 9.1.12.PB.5: Analyze how changes in taxes, inflation, and personal circumstances can affect a personal budget.
- 9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).
- 9.1.8.FP.5: Determine how spending, investing, and using credit wisely contributes to financial well-being.

Interdisciplinary Connections and Standards:

- 8.1.2.DA.4: Make predictions based on data using charts or graphs.
- 8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.
- 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.

ELA

- RI.CI.9–10.2. Determine one or more central ideas of an informational text and analyze how it is developed and refined over the course of a text, including how it emerges and is shaped by specific details; provide an objective summary of the text.
- RI.CR.9–10.1. Cite a range and thorough textual evidence and make clear and relevant connections, to strongly support an analysis of multiple aspects of what an informational text says explicitly and inferentially, as well as interpretations of the text.
- W.AW.9–10.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient textual and non-textual evidence.
- W.WR.9–10.5. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- W.SE.9–10.6. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (MLA or APA Style Manuals).
- SL.PE.9–10.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with peers on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- SL.PI.9–10.4. Present information, findings, and supporting evidence clearly, concisely, and logically. The content, organization, development, and style are appropriate to task, purpose, and audience.
- SL.9-10.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English.

Computer Science and Design

- 8.2.5.ITH.3: Analyze the effectiveness of a new product or system and identify the positive and/or negative consequences resulting from its use.
- 8.2.5.ITH.4: Describe a technology/tool that has made the way people live easier or has led to a new business or career.

Unit Understandings:

Students will understand that...

- Money management activities, budgeting strategies, and future financial decisions.
- Budgeting activities and personal financial statements.
- Money sense and consumer buying

Unit Essential Questions:

- How can consumer information sources benefit consumers?
- How can wise money management skills benefit individuals and businesses?
- How can a person responsibly use their money sense in the consumer world?

Knowledge and Skills:

Students will know...

- Personal financial planning: Personal Budget, Personal Balance Sheet, Income Statement and Statement of Cash Flows

Students will be able to...

- Create a personal budget
- Responsibly spend in the consumer world
- Comparison shop

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Students are tested on each chapter in this unit ·
- Students also participate in group discussions on current topics as they relate to the each lesson
- Students are also given mini-projects/assignments to test their practical knowledge of the topic

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Participate in real life consumer experiences (i.e., class trips, shopping)
- Create a working budget
- Role play

RESOURCES

Teacher Resources:

- Life Skill Series Books, “Money Sense,” “Math in the Mall,” “Best Buys.”
- Freckle
- www.ocali.org
- www.exchange.smarttech.com
- <http://illuminations.nctm.org/>
- <https://www.ixl.com/math/grade-8>
- <https://www.khanacademy.org/>

Equipment Needed:

- Laptops
- Teacher made materials
- Calculators
- Supplemental Materials
- Life Skills Series Books

UNIT OVERVIEW

Content Area: Mathematics

Unit Title: Math at Home

Target Course/Grade Level: Life Skills Mathematics/Grades 9-12

Unit Summary: The students will learn to apply math to everyday situations by utilizing problem solving skills. Students will understand how to apply mathematical skills outside of the classroom setting. Mathematical skills will be applied to areas such as household tasks, cooking, weather, sports, and budgeting.

Approximate Length of Unit: Approximately 13 Weeks

LEARNING TARGETS

NJ Student Learning Standards:

N-VM.C.6.: Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.

A-SSE.A.1.a.: Interpret expressions that represent a quantity in terms of its context. Interpret parts of an expression, such as terms, factors, and coefficients

A-CED.A.1.: Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

Career Readiness, Life Literacies, and Key Skills:

9.1.5. EG.5: Identify sources of consumer protection and assistance.

9.1.8.CR.3: Relate the importance of consumer, business, and government responsibility to the economy and personal finance.

9.1.12.PB.3: Design a personal budget that will help you reach your long-term and short-term financial goals.

9.1.12.PB.4: Explain how you would revise your budget to accommodate changing circumstances.

9.1.12.PB.5: Analyze how changes in taxes, inflation, and personal circumstances can affect a personal budget.

9.1.12.RM.1: Describe the importance of various sources of income in retirement, including Social Security, employer-sponsored retirement savings plans, and personal investments.

Interdisciplinary Connections and Standards:

8.2.8.ED.4: Investigate a malfunctioning system, identify its impact, and explain the step-by-step process used to troubleshoot, evaluate, and test options to repair the product in a collaborative team

8.2.8.NT.3: Examine a system, consider how each part relates to other parts, and redesign it for another purpose.

ELA

- RI.CI.9–10.2. Determine one or more central ideas of an informational text and analyze how it is developed and refined over the course of a text, including how it emerges and is shaped by specific details; provide an objective summary of the text.
- RI.CR.9–10.1. Cite a range and thorough textual evidence and make clear and relevant connections, to strongly support an analysis of multiple aspects of what an informational text says explicitly and inferentially, as well as interpretations of the text.
- W.AW.9–10.1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient textual and non-textual evidence.
- W.WR.9–10.5. Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- W.SE.9–10.6. Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (MLA or APA Style Manuals).
- SL.PE.9–10.1. Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with peers on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- SL.PI.9–10.4. Present information, findings, and supporting evidence clearly, concisely, and logically. The content, organization, development, and style are appropriate to task, purpose, and audience.
- SL.9-10.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English.

Computer Science and Design

- 8.1.8.IC.1: Compare the trade-offs associated with computing technologies that affect individual's everyday activities and career options
- 8.2.5.ITH.3: Analyze the effectiveness of a new product or system and identify the positive and/or negative consequences resulting from its use.
- 8.2.5.ITH.4: Describe a technology/tool that has made the way people live easier or has led to a new business or career.

Unit Understandings:

Students will understand that...

- Money management activities, budgeting strategies, and future financial decisions concerning home situations
- Applying mathematics to everyday household occurrences (ie cooking, carpet laying, laundry)

Unit Essential Questions:

- How do I use math to run a successful household?
- How do I conserve money and still responsibly care for my household needs?
- How does budgeting impact the household?

Knowledge and Skills:

Students will know...

- How to use finances to maintain household needs.
- What finances are necessary to run a household.
- The difference between purchasing services to maintain the home versus DIY projects.

Students will be able to...

- Financially run a household
- Learn the value of doing work themselves
- Applying math skills to everyday living.

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Students are tested on each chapter in this unit
- Students also participate in group discussions on current topics as they relate to the each lesson
- Students are also given mini-projects/assignments to test their practical knowledge of the topic

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Participate in real life type situations concerning home finances
- Create a working budget

RESOURCES

Teacher Resources:

- Life Skill Series Books, “Money Sense,” “Math in the Mall,” “Best Buys.”
- Freckle
- www.ocali.org
- www.exchange.smarttech.com
- <http://illuminations.nctm.org/>
- <https://www.ixl.com/math/grade-8>
- <https://www.khanacademy.org/>

Equipment Needed:

- Laptops
- Overhead Projector
- Teacher made materials
- Calculators
- Supplemental Materials

- Life Skills Series Books

UNIT OVERVIEW

Content Area: Life Skills Mathematics

Unit Title: Career Math

Target Course/Grade Level: Life Skills Mathematics/Grades 9-12

Unit Summary: The students will be introduced to various careers and learn how math applies to each of those careers. During this unit students will explore deeper into careers related to math, how math relates to other careers, and how to understand paychecks. This will then expand to budgeting and touch on understanding the basics of taxes.

Approximate Length of Unit: 14 Weeks

LEARNING TARGETS

NJ Student Learning Standards:

A-CED.A.1.: Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

N-Q.A.2.: Define appropriate quantities for the purpose of descriptive modeling.

F-BF.A.1.: Write a function that describes a relationship between two quantities.

Career Readiness, Life Literacies, and Key Skills:

9.1.5.CP.1: Identify the advantages of maintaining a positive credit history.

9.1.5. EG.4: Describe how an individual's financial decisions affect society and contribute to the overall economy.

9.1.5.RMI.1: Identify risks that individuals and households face.

9.2.5.CAP.1: Evaluate personal likes and dislikes and identify careers that might be suited to personal likes

9.2.5.CAP.2: Identify how you might like to earn an income.

9.2.5.CAP.3: Identify qualifications needed to pursue traditional and non-traditional careers and occupations.

9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements

Interdisciplinary Connections and Standards:

8.2.8.ED.5: Explain the need for optimization in a design process.

8.2.8.ED.4: Investigate a malfunctioning system, identify its impact, and explain the step-by-step process used to troubleshoot, evaluate, and test options to repair the product in a collaborative team.

8.2.2.ETW.2: Identify the natural resources needed to create a product.

8.1.2.AP.4: Break down a task into a sequence of steps.

ELA

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- 8.2.5.ITH.4: Describe a technology/tool that has made the way people live easier or has led to a new business or career.

Unit Understandings:

Students will understand that...

- Various careers
- Applying mathematics to the workplace
- How to choose a career

Unit Essential Questions:

- How do I choose a career?
- How do I recognize my strengths and weaknesses?
- How do I apply math to the career I choose?

Knowledge and Skills:

Students will know...

- How to choose a career
- How to gauge their personal strengths that will make them employable
- What math skills are necessary to be successful in the career of their choice

Students will be able to...

- Choose a career
- Recognize their strengths
- Applying math skills to employment

EVIDENCE OF LEARNING

Assessment:

What evidence will be collected and deemed acceptable to show that students truly “understand”?

- Students are tested on each chapter in this unit
- Students also participate in group discussions on current topics as they relate to the each lesson
- Students are also given mini-projects/assignments to test their practical knowledge of the topic

Learning Activities:

What differentiated learning experiences and instruction will enable all students to achieve the desired results?

- Participate in career exploratory survey that will highlight their strengths in the workforce
- Research various careers
- Practical applications of math skills

RESOURCES

Teacher Resources:

- Life Skill Series Books, “Money Sense,” “Math in the Mall,” “Best Buys.”
 - www.ocali.org
 - www.exchange.smarttech.com
 - <http://illuminations.nctm.org/>
 - <https://www.ixl.com/math/grade-8>
 - <https://www.khanacademy.org/>

Equipment Needed:

- Laptops
- Overhead Projector
- Teacher made materials
- Calculators
- Supplemental Materials